Raiffeisenbank Impact and Allocation Report

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Introduction

In 2021, Raiffeisenbank Czech Republic (RBCZ) launched its green bond issuance program aimed at promoting sustainable lending in the Czech Republic. With a total nominal volume of € 350 million, the program launched by RBCZ was the first green bond issuance program introduced by a financial institution in the Czech Republic.

Our Green Bond Framework has been established as part of our broader group sustainability strategy with the aim of increasing the funding of projects with a positive environmental impact. Assets are aligned with the ICMA (International Capital Market Association) Green Bond Principles[1]. Eligible green categories include green buildings, renewable energies, energy efficiency, clean transportation, and sustainable agriculture & forestry.

Important Facts at a glance:

As at 31 December 2022

€ 350 million Green Bonds outstanding[2]

€ 269.23 million Green Loan Portfolio

€ 153.22 million Green Buildings

€ 36.24 million Clean Transportation

€ 68.53 million Renewable Energy

€ 11.24 million Sustainable Forestry and Agriculture

190 366 metric tons of CO_2 saved per year

equals 707 metric tons of CO_2 saved per year

per € 1 million investment

[1]Green-Bond-Principles-June-2021-140621.pdf (icmagroup.org)
[2]Gross amount

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Foreword by Corporate board member

Last year was defined by geopolitical events not many of us expected to encounter in our lifetime. The war in Ukraine led to turmoil on the markets and keeps impacting economies, primarily influencing the most crucial commodity, the energy. Energy crisis might have had extremely damaging effects on the businesses and people if there would not be cooperation at European level and adjustment to the situation in fact at every energy consumer.

Events that shaped last year just underscored the importance of Sustainability and the fact that what we do is necessary for the long-term well-functioning economic environment. Raiffeisenbank has brought to the market new products that helped businesses to improve their energy efficiency and self-sufficiency, so they could remain competitive on the market.

The topic of Sustainability has gained momentum, particularly among large corporations. At the same time, we still see need for more effort on raising the awareness about the topic. That's what we do here in Raiffeisenbank, where our in-house team offers ESG Advisory and Sustainable finance instruments to the business clients of all sizes, be it small enterprise or large corporation. Also, we do not leave our own staff aside and continue in internal education on the topic.

As mentioned before, cooperation is necessary, and we realize it in our institution. We want to support the Czech economy in transformation to the self-reliant and resistant player and we collaborate on the matters of Sustainability with private, public, and non-profit sector on various platforms.

There is an old saying, practice what you preach, and that is in line with our corporate values. Last year we strengthened our sustainability governance by establishing Corporate ESG team, appointing Sustainability officer and by setting up of Responsible Banking Steering Group.

Even though past few years have been challenging and taxing on our society, I still see a bright future ahead of us just because of the fact how we managed to get through this difficult period of our lives and unite when it is most important.

František Ježek / Member of the Board / 26 April 2023

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Raiffeisenbank a.s. green journey in 2022:

1) In the product area we launched **Financing of Photovoltaics** and **Energy Savings** as standardized products. We provide our clients with a simplified and standardized process where we are able to assist with the financing and we accompany the client from the initial idea to the project implementation stage.

2) The newly formed team with a focus on sustainable finance is **fully established, cooperating actively** with both internal and external clients. The team ran a roadshow across all corporate branches to offer ESG advisory to clients. We also managed to underwrite our first Sustainability linked loan.

3) We became partners of **"Změna k lepšímu" (Change for the Better)**, an initiative introduced by Czech businessmen, scientists and active citizens to contribute to a sustainable transformation of the Czech economy.

4) In cooperation with other local banks under the auspices of CBA, a standardized ESG questionnaire for clients will be launched on a single platform for all the banks in the market.

5) Our internal systems are consistently improved in order to screen our portfolio on EU Taxonomy criteria as efficiently as possible.

6) We actively participate in sustainability events, such as conferences and workshops, either as event partners or speakers in lectures and panel discussions. This helps us to stay in touch with latest sustainability trends and communicate the progress achieved.

7) We established strategic partnerships with entities that are experts in various fields of sustainability to be able to assist our clients with complex issues, going beyond what is considered standard.

8) Thanks to our successful green bond issue, we won the Green Market Pioneer category of the seventh annual Climate Bond Awards. The awards are given to organisations that are pioneers in the sustainable finance sector and are working to address the climate crisis. Last year's green bond issue by Raiffeisenbank in the Czech Republic contributes to the significant portfolio of green bonds that makes Raiffeisen Bank International (RBI) one of the most active players in the CEE region in terms of green and ESG bonds.

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Green Bond portfolio case study

nextbike Czech Republic runs the biggest bike sharing platform in the Czech Republic with almost 180 000 regular users. The company provides almost 7000 bicycles in 28 towns around the Czech Republic. nextbike is the European market leader in bike sharing operating in 18 countries. nextbike Czech Republic licenses the trademark and it is run as an independent company with independent management.

The company is active in many regions of the country and gives importance to its regional presence as it offers its services to towns with populations starting at 9000. Its business model supports the concept of micromobility.

The concept helps towns address the issue of:

- **Climate change** – transport in Europe contributes to 27% of EU Total CO_2 emissions, being one of the largest sources[3].
- **Congestion** – most of the cities suffer from a bad traffic situation where commuters spend a significant portion of the day in traffic. Reduced commuting time leads to better productivity of workforce and generally greater well-being[4].
- **Noise** – the EU estimates that 40% of Europeans are exposed to dangerous levels of road traffic-related noise impacting the quality of life in cities.

One of the main pillars of nextbike Czech Republic is the cooperation with municipalities where local governments pay for the first 15 minutes of each ride. This fact underscores that micromobility is not competition for public transport but rather its complement where it serves as a last mile mean of transport. According to the client's data, 15 minute rides account for 88–94% of all rides.

Cooperation between companies and municipalities is crucially important for the sustainable development of the country. No steps forward can be made where every entity tries to walk its own way. nextbike Czech Republic understands this and is leading by a great example, sending an important message to its stakeholders.

The second pillar concerns the cooperation with big corporations seeking to reduce the carbon footprint of their employees commuting to the offices. nextbike Czech Republic installs their stands strategically close to the headquarters of corporations. Also, important partnerships are formed with corporations in order to develop the infrastructure. The trend of companies aiming to improve their ESG status is increasing and nextbike Czech Republic greatly contributes to the sustainability transformation in the country.

The company is an enabler of sustainability for others and keeps in mind they need to lead by example. Circular economy is an essential topic for the company's operations as it tries to extend the lifecycle of every piece of equipment while maintaining best possible quality as the company's core value.

[3] Transport Environment (2018). CO_2 emissions from cars: the facts. [online] Available at: https://www. transportenvironment.org/sites/te/ files/publications/2018_04_CO2_ emissions_cars_The_facts_ report_ final_0_0.pdf [Accessed 20 Jul. 2019]

[4] The Telegraph (2018). World's most congested cities. Available at https://www.telegraph.co.uk/travel/news/worlds-most-congested-cities/

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Independent limited assurance report (ISAE 3000 (Revised))

To the Board of Directors of
Raiffeisenbank a.s.
Hvězdova 1716/2b
140 78 Prague 4

We have been engaged to conduct a limited assurance engagement on the Allocation report and the Impact report included in the Raiffeisenbank Impact and Allocation Report of the Green Bond ISIN XS2348241048 (the "Green Bond Reports") issued by Raiffeisenbank a.s. (the "Company") for the period from 1 January 2022 to 31 December 2022 in accordance with provisions of the Green Bond Framework issued by the Company in May 2021 (the "Framework").

Responsibilities of the Board of Directors of the Company

The Company is responsible for the preparation and presentation of the Green Bond Reports in accordance with the Framework.

In preparing the Green Bond Reports, the board of directors of the Company used Company's self-developed Framework.

This responsibility of the Board of Directors of the Company includes the selection and application of appropriate methods for preparing the Green Bond Reports as well as making assumptions and estimates related to individual disclosures, which are reasonable in the circumstances. In addition, the board of directors is responsible for such internal control they have determined necessary to enable the preparation of the Green Bond Reports that is free from material misstatements, whether intentional or unintentional.

Responsibilities of the practitioner

Our engagement has been conducted in accordance with the International Standard on Assurance Engagements 3000 (Revised) applicable to Assurance Engagements Other Than Audits or Reviews of Historical Financial Information (ISAE 3000 (Revised)) established by the International Auditing and Assurance Standards Board ("IAASB"). In accordance with this standard we have planned and performed our engagement to obtain a limited assurance regarding the subject matter of the engagement.

We applied International Standard on Quality Management 1, Quality management for firms that perform audits and review of historical financial information, and other assurance and related services engagements ("ISQM1"), and accordingly maintain a comprehensive system of quality management including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

We complied with the applicable independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants (the "Code"). The Code is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

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Summary of work performed

As part of our assurance procedures, we performed the following work:

- We have inspected the respective sections of the Framework and respective Green Bond Prospectus, particularly the sections related to total Green Bond proceeds and its use.
- We have interviewed relevant Company's employees that participated in the preparation of the Green Bond Reports about the process of preparation, the measures on hand and precautionary measures (system) for the preparation of the Green Bond Reports.
- We have obtained understanding of the process for evaluation and selection of the eligible projects, which might be financed by the Green Bond proceeds, and verify whether this process includes the eligibility criteria set out in the Framework. The eligible project, which might be financed by the Green Bond proceeds, must be in line with the Framework.
- We have reviewed the design and the implementation of the internal procedures and policies to understand the tracking process of the investments, expenditure and other costs linked to the usage of the Green Bond proceeds for the eligible projects.
- We have assessed that the rules for management of Green Bond proceeds are clearly defined and documented in line with requirements set out in the Green Bond Prospectus.
- We have inspected the description of the projects financed and check project-related materials to determine eligibility in comparison with the of Framework to assess whether the Green Bond proceeds have been allocated in accordance with the Framework on sample basis.
- We have inspected on sample basis that the Green Bond proceeds have been used in line with the rules to (re)finance relevant project expenditures and are monitored in line with the rules specified in the Framework.
- We have reconciled the that the initial balance of Green Bond proceeds corresponds to the proceeds as per the Green Bond Prospectus net of costs for issuance of the Green Bond.
- We have reconciled the disbursements from the Green Bond proceeds to the reported allocated proceeds, in particular reported amounts of
    - Total amount of Green Bonds issued
    - Total amount and number of Eligible Green Loans
    - Breakdown by Eligible Category (Green Buildings, Renewable Energy, Energy Efficiency, Clean Transportation, Agriculture and Forestry)
    - Breakdown of Green Building loans (including type of building and building certificates)
    - The geographic distribution of Eligible Green Loans
    - Share of Green Bond proceeds allocated and yet unallocated, if any
    - Share of assets financed vs. re-financed
- We have inspected the presentation of the disclosed impact indicators in the Green Bond Reports defined in the section 2.4 of the Framework.
- We have assessed that the methodology for calculating impact indicators corresponds to usual market practice
- We have assessed that emission factors used in calculating impact indicators are sourced from reputable sources on sample basis
- We have assessed numerical accuracy of the calculations on sample basis
- We have assessed Company's methodology for setting data quality scores for data inputs and resulting impact metric calculations. We have used guidance available for financed emissions provided by GHG protocol and PCAF as appropriate.
- We have checked that the Company has applied the data quality scores for consistently

In a limited assurance engagement, the procedures performed vary in nature and timing from, and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement.

The procedures performed do not constitute an audit according to the International Standards on Auditing, nor an examination of the effectiveness of the Company's internal control systems, or an examination of compliance with laws, regulations, or other matters. Accordingly, our performance of the procedures does not result in the expression of an opinion, or any other form of assurance on the Company's internal control systems or its compliance with laws, regulations, or other matters.

The assurance provided by our procedures should therefore be considered at the light of these limitations on the nature and extent of evidence-gathering procedures performed.

Deloitte.

We believe that our evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.

Conclusion

Based on the procedures performed and the evidence obtained, nothing came to our attention that causes us to believe that the Green Bond Reports for the period from 1 January 2022 to 31 December 2022, have not been prepared and presented, in all material respects, according to section(s) 2.1-2.4 of the Green Bond Framework issued by the Company in May 2021.

Purpose of the report and liability

We issue this report on the basis of the engagement agreed with Raiffeisenbank a.s. The limited assurance engagement has been performed for purposes of Raiffeisenbank a.s. and the report is solely intended to inform Raiffeisenbank a.s. on the results of this limited assurance engagement.

This report is therefore not intended to provide third parties with support in making any investment or financial decisions. Our responsibility with respect to Raiffeisenbank a.s. is governed by the Engagement Letter dated 22 March 2022. We do not assume any responsibility to any third party.

In Prague on 26 April 2023

Audit firm:

Deloitte Audit s.r.o.

Responsible practitioner:

Petr Pruner
on the basis of a power of attorney

Foreword by Sustainability Officer

Raiffeisenbank considers the development of sustainability and responsible banking principles as its strategic priority. As a bank, we feel a dual responsibility in the process of green transformation and its financing – firstly, we strive to act as a financial institution in the most sustainable way possible, and secondly, we want to offer solutions for our clients in the form of sustainable financing complemented by ESG advisory services.

Raiffeisenbank's approach to responsible banking is based on developing three basic pillars: 1) ESG advisory and sustainable finance, 2) environmental and social responsibility and 3) responsible governance and management. In 2022, the bank completed its ESG governance structure and began to fully implement ESG factors into its risk and management processes. Additionally, we are active members of several organizations and initiatives that promote ethical values in business (Diversity Charter, Change for Better, Climate and Sustainable Leaders, Czech Banking Association and its Commission for Sustainable Finance, etc.).

We support diversity and women in managerial positions – we provide a development program for women managers, collaborate with initiatives that focus on helping women in leadership roles (such as #Finženy), and have a specialized Diversity Officer position. Furthermore, Raiffeisenbank joined the Diversity Charter in 2021. We support fair compensation and measure the Gender Pay Gap (GPG), and provide managers with data on GPG in their departments. As part of our charity efforts, both we and our employees have been supporting the Good Angel foundation for a long time, as well as organizations such as People in Need, SOS Children's Villages, Charter 77 Foundation, and many others.

We facilitate parents' return to work after parental leave - we have set conditions for automatic adjustment of salaries for returning parents; the bank applies and supports part-time work, and provides the opportunity to use company nurseries.

Michal Putna / Sustainability Officer / 26 April 2023

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Key data

RBCZ's Green Bond program

RBCZ's green bond framework supports achievement of the UN Sustainable Development Goals (SDGs), with a particular focus on the following SDGs:

In 2021, RBCZ issued its first Green Bond sold to both institutional and private investors. This report relates to all Green Bonds outstanding as at the end of December 2022.

Our current Green Loan Portfolio contributes to the following SDGs:

ISIN	Currency	Issuance date	Maturity Date	Nominal as of 31. 12. 2022
XS2348241048	EUR	09. 06. 2021	09. 06. 2028	350 mn
Total RBCZ Issuances (mn)				350 mn
Eligible Category[5]	7 AFFORDABLE AND CLEAN ENERGY	15 LIFE ON LAND	11 SUSTAINABLE CITIES AND COMMUNITIES	13 CLIMATE ACTION
Green Buildings	153.22 mn €		153.22 mn €	
Renewable Energy	68.53 mn €			68.53 mn €
Sustainable Forestry and Agriculture		11.24 mn €		
Clean Transportation			36.24 mn €	
Total	**221.75 mn €**	**11.24 mn €**	**189.46 mn €**	**68.53 mn €**

[5]Partial eligibility not accepted

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Allocation Report
as of 31. 12. 2022

The evaluation and selection process for Eligible Green Loans is a key process in ensuring that the amount equivalent to the net proceeds from Green Bonds is allocated to assets and activities which meet the criteria in the Framework. Lookback period of 3 years is considered in the green buildings category. With respect to other categories no assessment of lookback period is in place.

All potential Eligible Green Loans are subject to Raiffeisenbank's standard credit process in line with the normal course of business and only loans that have been approved through this process can be considered for Green Bond eligibility.

Raiffeisenbank's Green Bond Committee ("GBC") is responsible for ensuring that allocations are made to Eligible Green Loans as specified in the use of proceeds section above and for overseeing the entire issuance process.

As of the end of 2022, the total green loan portfolio amounted to € 269.23 million. All projects were approved by GBC and included in the Green Bond Portfolio in 2022.

Green Buildings € 153.22 million (56.91%)

- 5 out of 6 projects are built, one of them is under construction
- All projects are located in the Czech Republic

Sustainable Agriculture and Forestry € 11.24 million (4.18%)

- Sustainable forestry focused on production of tree seedlings
- Farms with sustainable agriculture practices
- All projects are located in the Czech Republic

Clean Transportation € 36.24 million (13.46%)

- Public electric railway transport
- Electric cars
- Electric forklifts
- Bikesharing
- All projects are located in the Czech Republic

Renewable Energy € 68.53 million (25.45%)

- Production of energy from photovoltaics
- All projects are located in the Czech Republic

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Green Bond portfolio allocation

Raiffeisenbank Czech Republic is committed to allocate the full amount of proceeds from the Green Bond issuance by 1 June, 2024.

Asset Category		Allocated amount in € million	Number of projects	% from Allocated amount	% from total Net proceeds	New financing/ refinancing**
Green Buildings	Commercial Buildings	**126.48**	**4**	**46.98%**	**36.44%**	**45%/55%**
	Retail Buildings	**26.74**	**2**	**9.93%**	**7.70%**	**0%/100%**
	TOTAL	**153.22**	**6**	**56.91%**	**44.14%**	**37%/63%**
Sustainable Agriculture and Forestry	Sustainable Forestry	**8.71**	**1**	**3.24%**	**2.51%**	**0%/100%**
	Sustainable Agriculture	**2.53**	**2**	**0.94%**	**0.73%**	**100%/0%**
	TOTAL	**11.24**	**3**	**4.18%**	**3.24%**	**22%/78%**
Clean Transportation	Public Rail Transport	**12.79**	**1**	**4.75%**	**3.68%**	**0%/100%**
	Electric Vehicles	**4.4**	**88***	**1.63%**	**1.27%**	**100%/0%**
	Electric Forklifts	**16.26**	**678***	**6.04%**	**4.68%**	**100%/0%**
	Bike Sharing	**2.79**	**2**	**1.04%**	**0.80%**	**100%/0%**
	TOTAL	**36.24**	**5*****	**13.46%**	**10.43%**	**65%/35%**
Renewable Energy	Photovoltaics	**68.53**	**47**	**25.45%**	**19.76%**	**2%/98%**
Total allocated		**269.23**			**77.57%**	
Unallocated		**77.87**			**22.43%**	
Green bonds net proceeds		**347.1**				

* this number represents pieces of equipment not number of projects
** the ratio is defined based on the financed volume
*** Electric vehicles and electric forklifts are perceived as one portfolio, therefore accounted as one project

As at the allocation report reporting date, the use of proceeds is calculated based on the outstanding principal when it comes to the loans and net present value for the leasing. The share of unallocated net proceeds represented 22.43% as of 31 December 2022. These proceeds have been deposited with the Czech National Bank on the Reverse Repo instrument. They are not fully segregated on particular accounts.

Maturity profile of the portfolio

The volumes represent the outstanding balance as of 31 December 2022 with a maturity profile representing the final maturity of the proceeds:

2023 – 2024	2025 – 2027	After 2027
€ 10.93 mn	€ 128.44 mn	€ 129.86 mn

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Impact Report as of 31. 12. 2022

Presentation of an impact report in conformity with the Green Bond Framework requires the bank's management to make judgments, estimates and assumptions that affect the reported amounts of CO_2 emissions avoided (saved) during the reporting period. These estimates are based on the best available information the management has at the reporting date. These estimates are subject to inherent uncertainty due to various factors such as limited data available, time lag in data (e.g. Czech electricity network emission factor published by the Ministry of Industry and Trade with approximately 1 year delay), various external conditions which are highly specific, such as the amount of CO_2 offset by a tree which depends on tree species, location, growing conditions, water availability, sunlight, local climate, soil nutrients and other site-specific factors. The management analyses and evaluates various available data sets and compares various estimates to select the estimate used in calculations of the reported amounts of CO_2 emissions. Where a range of estimates is available the management selects the lower end of the range of the estimate. The impact of projects which were originated during the year is calculated based on time proportionality. Please refer to section Carbon impact methodology for details.

Projects can be added to the impact report once the project has been approved and determined as eligible, or once green bond proceeds have been allocated to eligible disbursements.

In 2022, we contributed to avoiding around 190 366 tons of CO_2 emissions with our Green Loan portfolio funded by the Green Bonds. The most significant contribution of CO_2 avoided is thanks to the financing of Sustainable Forestry projects.

Asset category	CO_2 savings per year in metric tons	CO_2 savings in %	Allocated amount in %
Green Buildings	16 770	8.81%	56.91%
Clean Transportation	15 628	8.21%	13.46%
Sustainable Forestry and Agriculture	99 540	52.29%	4.18%
Renewable Energy	58 428	30.69%	25.45%
Total RBCZ Green Portfolio	**190 366**		

190 366 metric tons of CO_2 annually saved with the green portfolio of € 269.23 million

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CO_2 Savings – RBCZ Green Portfolio

Annual CO_2 reduction per € 1 million invested 707 metric tons, equivalent to greenhouse gas annual emissions from[6]

OR

OR

42 362
Greenhouse gas emissions from passenger vehicles driven for one year

23 993
private homes' CO_2 emissions

440 304
barrels of oil consumed
CO_2 emissions

[6] Greenhouse Gas Equivalencies Calculator | US EPA

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Green Buildings

The real estate properties included in the eligible green portfolio have considerably lower energy consumption than the average level for real estates in the Czech Republic. This leads to an annual reduction in greenhouse gas emissions of 16 770 metric tons per year. Only finalized projects are considered for CO_2 emissions avoidance.

Weighted average energy consumption of baseline portfolio	384.26 kWh/m²*year
Weighted average energy production of RBCZ green portfolio	102.73 kWh/m²*year
Weighted average energy savings per m² per year	73.27 %
Total CO_2 savings	16 770 tons

Renewable Energy

RBCZ's portfolio of renewable energy consists of photovoltaic projects. The electricity mix in the Czech Republic relies heavily on fossil fuels and substantial investments are required in order to support renewable energy projects. Our portfolio contributes to the goal of making renewable energy a more relevant energy source in the Czech Republic

Installed capacity	53,89 MW
Czech Republic electricity emission factor	0.39 t CO_2/MWh
CO_2 savings per year	58 428 tons

Clean Transportation

RBCZ's clean transportation portfolio consists of various financed projects that aim to replace the means of transport relying on fossil fuels with vehicles with zero tailpipe emissions.

Public railway transport

Passengers transported	918 710
Average distance travelled per passenger in Czechia (km)	56
CO_2 savings per year	3 875 tons

Electric vehicles

Number of financed vehicles	88
Average distance per year (km)	15 000
CO_2 savings per year	6 999 tons

Electric forklifts

Number of financed forklifts	678
Average hours in operation during year	1 500
CO_2 savings per year	4 744 tons

Bike Sharing

Number of financed bikes	4 600
Average yearly distance per user (km)	82
CO_2 savings per year	10 tons

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Sustainable Forestry and Agriculture

Our portfolio within this category supports CO_2 offsetting through the production of tree seedlings with PEFC certification. Also, emissions are avoided thanks to investments into agricultural projects with a more effective production process compared to the conventional ones.

Forestry

Seedlings produced	35 172 000
CO_2 offset per tree	21.77 kg
CO_2 savings per year	99 540 tons

Agriculture

The investment took place in 2022 and its impact should be generated in the forthcoming years. Thus, we did not account for the impact of these projects in this year's report.

Carbon impact methodology

Sources used for the calculation

The data used in the methodology for CO_2 calculations come from a variety of sources. For this reason, we take a consistent approach to each area based on the methodology below. It is always the case that if we do not find relevant data in the given hierarchy that meets the conditions listed below, we move down one level.

The data used for the calculation is reviewed at each reporting date for a validation of the used data to see if more comprehensive and up-to-date data exists.

We prefer to work with up-to-date data, namely not older than 4 years. We take into account the location of data collection, preferring data from the Czech Republic or nearby countries/regions.

We prefer comprehensive studies with verified sources.

Below is the hierarchy according to which we search for relevant data for the calculation. We proceed from primary data onwards.

1. Primary data from the client - verified by a third party
2. State institutions - Czech Statistical Office, Ministries
3. Scientific institutions - universities and other entities focused on the Czech Republic
4. Relevant NGOs and multinational organisations - IPCC, EPA
5. Private entities

Scoring methodology

In order to be fully transparent, we score the data used for the CO_2 emission avoidance calculation. The scoring logic is aligned with the GHG protocol corporate standard.

	score 3	score 2	score 1
Technological representitaveness	exactly known calculation methodology	methodology known, but sources derived	unknown/other
Temporal representitaveness	no more than 4 years old	no more than 7 years old	older than 7 years
Geographical representitaveness	Czech republic	EU	the rest of world
Completeness	direct data	at least 50% direct data	based on proxy
Reliability	measured from the source	a well-documented assumption	the rest

The below table shows the scores awarded to particular data inputs.

Score calculation example

No source in the Czech Republic was found for the diesel emission factor. Thus, a US government website was chosen as the source. The relevant data originate from an official study. It was last updated in 2022 and refers to a 2010 study.

Source score: fuel emission factor – diesel

Area	Weight	Rating*	Final score
Technological representativeness	0.2	1	0.2
Temporal representativeness	0.2	2	0.4
Geographical representativeness	0.2	1	0.2
Completeness	0.2	1	0.2
Reliability	0.2	1	0.2
Final score			**1.2**

* Score ranges between 1 and 3, 3 being the best

List of sources

Index	Category – data	Source name	Value	Reason	Link	Reviewed	Rating
1	**Transport – Trains** Average emissions of a diesel coach	carbon-independent.org	28 g CO_2/km	No relevant source in the Czech Republic found; a foreign source from the UK was used	Emissions from bus travel (carbon-independent.org)	17. 3. 2023	1.2
2	**Transport – Trains** Average distance traveled by 1 passenger	Sydos	56 km	Official transport statistics used. Data could not be provided by a client.	Čtvrtletní přehledy základních ukazatelů (sydos.cz)	17. 3. 2023	2,4
3	**Transport – Trains** Number of transported passengers in 2022	Client	918 710 passen-gers	Data provided by the client and these are considered as most relevant.	Credit analysis	17. 3. 2023	3
4	**Transport – Cars** Fuel emission factor – diesel	Greenhouse Gases Equivalencies Calculator	2.69 CO_2/litre	Official US government website, converted from 10.180 grams of CO_2/gallon to litres. Emission intensity of fuel should not vary across geographical regions.	Greenhouse Gases Equivalencies Calculator – Calculations and References | US EPA	17. 3. 2023	1,2

Index	Category – data	Source name	Value	Reason	Link	Reviewed	Rating
5	**Transport – Cars** Average car consumption in the Czech Republic	odyssee-mure.eu	5.29 l/km	Average consumption of typical car in Czech Republic must be considered as appropriate substitute of electric car given the fact there is not a reliable comparison of each electric car model to its fossil fuel peer.	New cars specific consumption by country | ODYSSEE-MURE	17. 3. 2023	1,8
6	**Transport – Cars** Average mileage of a company car	electriccarsre-port.com	15 thousand km/year	Average company car mileage considered as no record of the exact mileage per financed car is monitored.	Pure electric cars the UK are driven an average of 9,435 miles per year (electriccar-sreport.com)	17. 3. 2023	1
7	**Transport – Bicycles/e-bikes**	Client	82 km/ bike, we finance 4600 bikes	Number of bikes financed and average distance per year. Data from client and these are considered as most relevant.	Data from the client	17. 3. 2023	3
8	**Transport – Bicycles/e-bikes** Emission factor of public transport vehicles	carbonindepen-dent.org	89 g CO_2/km	No relevant source in the Czech Republic found; UK source used as the most relevant that could be found.	Emissions from bus travel (carbonindepen-dent.org)	17. 3. 2023	1.2
9	**Transport – Forklifts**	RB Leasing	1500 hours/ year	Qualified estimate of average mileage as no record of the exact mileage per financed forklift is monitored.	rl.cz	17. 3. 2023	1.6
10	**Transport – Forklifts** Diesel forklift consumption l/h	mojemt.cz	3 l/h	Average consumption only found on a website focused on forklifts and their sales as no record of the exact fuel consumption per financed forklift is monitored.	How much does my forklift consume? | Energy and forklift consumption | MojeMT.cz	17. 3. 2023	1.2
11	**SFA – Seedlings** CO_2 saved per tree	encon.eu	One tree saves 21.77 kg of CO_2	No better estimate has been found. Client does not monitor these data. Lower limit of CO_2 savings considered.	Calculation of CO_2 offsetting by trees | Encon	17. 3. 2023	1
12	**SFA – Seedlings** Survival rate	europa.eu	13% survival rate	Client does not monitor these data thus assumption is used. Lower limit of survival rate is considered.	swd_3bn_trees.pdf (europa.eu)	17. 3. 2023	1.2

Index	Category – data	Source name	Value	Reason	Link	Reviewed	Rating
13	**SFA – Seedlings** Number of grown seedlings	Client	35.172 million	Data provided by the client and these are considered as most relevant.	Credit analysis	17. 3. 2023	3
14	**Renewable energy** Emission factor in electricity production in the Czech Republic	mpo.cz	0.39 tCO_2/ MWh	Data for 2022 were not published in the time of report publication, thus data for 2021 were used directly from the Ministry's website.	CO_2 emission factor from electricity production in 2010–2021 | MPO	17. 3. 2023	2.4
15	**Renewable energy** Average annual production	worldbank.org	2.78 kWh/kWp	Official statistics for the Czech Republic; lower limit considered.	Global Solar Atlas	17. 3. 2023	1.6
16	**Renewable energy** PVPP output	ERU	53.89 MW	ERU as the official office responsible for granting the license for production of electricity. ERU stores the actual data in its publicly available database and we consider this data as most relevant.	License Finder | eru.cz	5. 4. 2023	3
17	**Buildings** Emission factor	entranze.eu	423.84 kWh/m^2 per year for non-residential building/ 240.42 kWh/m^2 per year for residential building	There is no publicly available data for the benchmark building in Czech Republic that would be more relevant and more recent.	Total unit consumption per m^2 in residential (at normal climate) (enerdata.net)	17. 3. 2023	2

Impact methodology for asset categories

Score rating in the each category below is considered as the lowest rating out of the variables that are used for the given CO_2 avoidance calculation.

Clean transportation

Trains

CO_2 savings	=	number of passengers[3]	×	average distance	×	CO_2/km for a diesel coach

Score rating: 1,2

- For a diesel coach, we estimate an average CO_2 emission of 0.028[1] KG per person and the average distance[2] travelled by passengers per year
- We consider an electrically powered train with zero direct emissions

Cars

CO_2 savings	=	average mileage of company car[6]	×	average consumption[5] of car in the Czech Republic	×	diesel emission factor

Score rating: 1

- As an alternative to an electric car we consider a diesel-powered car
- Diesel emission factor[4]: 2.69 kg CO_2/litre

Bike Sharing

CO_2 savings	=	average km travelled per user[7]	×	number of users[7]	×	average CO_2 production per bus passenger

Score rating: 1,2

- We consider the bus as an alternative to an e-bike/bike because both of them are considered as last-mile transportation
- Average CO_2 production per passenger on a bus[8]: 0.089 kg/km

Raiffeisen BANK

Electric Forklift

CO_2 savings	=	average forklift mileage	×	diesel consumption	×	diesel emission factor[4]

Score rating: 1,2

- As an alternative to an electric forklift we consider a diesel forklift
- Diesel truck consumption 3 l/h[10]
- Average forklift mileage 1500 h/year[9]

Sustainable forestry and agriculture

CO_2 savings	=	number of seedlings	×	21.77 (CO_2 saved)	×	0.13 (survival rate)

Score rating: 1

- New technologies for planting tree seedlings – calculation procedure
- The client supplies the number of seedlings grown[13]. We estimate that the tree will save 21.77 kg of CO_2[11]. As a survival rate that the tree seedlings will reach maturity we set 13%[12]

Renewable energy

CO_2 savings	=	installed capacity	×	value of CO_2 emission factor for electricity production in the Czech Republic	×	average annual production per 1kWP of capacity

The calculation of CO_2 savings for a photovoltaic power plant follows the following procedure:

Score rating: 1,6

- From the Energy Regulation Office, we obtain the PV plant output[16]
- As for an emission-free technology, we consider the PV to have an emission factor of 0
- We consider the average emissions from electricity production at 0.39 t CO_2/MWh[14]
- Average production is 2,78 kWh/kWp[15]

Green buildings

CO_2 savings	=	(final energy demand – baseline)	×	emission factor

Score rating: 2

Energy savings are calculated as savings compared to the average building-wide consumption (Entranze project, https://www.entranze.eu/).

We have an EPC label, and put the corresponding value directly against the average national consumption. Energy from non-renewable resources is not taken into account when we calculating CO_2 emission avoidance.

Savings are calculated against the average consumption, considered as follows, according to the data above, as:

- Residential buildings 240,42 kWh/m^2 per year[17]
- Non-residential buildings 423,84 kWh/m^2 per year[17]

The energy savings are then converted based on the emission factors for each source (gas, oil, natural gas and biomass). If the particular energy mix is not available we apply the energy mix for an average local building.